

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1 1. (Currently Amended) A method of communicating in a mobile communications
2 system, comprising:
3 detecting that a first mobile station has stopped transmitting traffic containing
4 real-time, interactive data on a first channel portion;
5 multiplexing traffic from a second mobile station on the first channel portion
6 during a period in which the first mobile station is not transmitting traffic; and
7 receiving a request from the first mobile station for re-allocation of the first
8 channel portion, the request indicating that the first mobile station is about to start transmitting
9 traffic,
10 wherein the request contains a coded version of an identifier associated with the
11 first mobile station, the coded version of the identifier being based on application of coding to
12 the identifier according to a coding scheme.

1 2. (Cancelled)

1 3. (Previously Presented) The method of claim 1, further comprising allocating the
2 first channel portion back to the first mobile station in response to the request.

1 4. (Currently Amended) The method of claim [[14]] 10, wherein detecting that the
2 first mobile station has stopped transmitting traffic comprises detecting that the first mobile
3 station has entered a discontinuous transmission mode.

1 5. (Original) The method of claim 4, wherein detecting that the first mobile station
2 has entered discontinuous transmission mode comprises receiving a predetermined message
3 indicating that the mobile station is entering the discontinuous transmission mode.

1 6. (Currently Amended) The method of claim [[14]] 10, wherein multiplexing the
2 second mobile station traffic comprises receiving the second mobile station traffic on a
3 predetermined time slot of a frame, the first channel portion comprising the predetermined time
4 slot.

1 7. (Cancelled)

1 8. (Currently Amended) The method of claim [[14]] 10, wherein receiving the
2 request comprises receiving a request that is one burst in length.

1 9. (Previously Presented) The method of claim 1, wherein receiving the request
2 comprises receiving a request that coincides with traffic from the second mobile station.

1 10. (Currently Amended) ~~The method of claim 14, further comprising~~ A method of
2 communicating in a mobile communications system, comprising:

3 detecting that a first mobile station has stopped transmitting traffic containing
4 real-time, interactive data on a first channel portion;

5 multiplexing traffic from a second mobile station on the first channel portion
6 during a period in which the first mobile station is not transmitting traffic;

7 receiving a request from the first mobile station for the channel portion, the
8 request indicating that the first mobile station is about to start transmitting traffic,

9 wherein receiving the request comprises receiving the request during a period in
10 which the second mobile station is transmitting traffic in the first channel portion; and

11 extracting the request from a combined signal including the request and the traffic
12 from the second mobile station.

1 11. (Original) The method of claim 8, wherein receiving the request comprises
2 receiving a request that is based on an identifier associated with the mobile station.

1 12. (Original) The method of claim 11, wherein the identifier comprises a temporary
2 flow identifier.

1 13. (Currently Amended) A method of communicating in a mobile communications
2 system, comprising:

3 detecting that a first mobile station has stopped transmitting traffic containing
4 real-time, interactive data on a first channel portion;

5 multiplexing traffic from a second mobile station on the first channel portion
6 during a period in which the first mobile station is not transmitting traffic; and

7 receiving a request from the first mobile station for the channel portion, the
8 request indicating that the first mobile station is about to start transmitting traffic,

9 wherein receiving the request comprises receiving a request that is one burst in
10 length,

11 wherein receiving the request comprises receiving a request that is based on an
12 identifier associated with the mobile station,

13 wherein receiving the request comprises receiving a request that contains a coded
14 version of the identifier, the coded version having a length that is longer than the identifier, the
15 coded version of the identifier being based on application of coding to the identifier according to
16 a coding scheme.

1 14. (Cancelled)

1 15. (Currently Amended) The method of claim [[14]] 10, further comprising sending
2 an assignment message to the first mobile station in response to the request.

1 16. (Original) The method of claim 15, wherein sending the assignment message
2 comprises sending a one-burst assignment message.

1 17. (Previously Presented) A method of communicating in a mobile communications
2 system, comprising:

3 detecting that a first mobile station has stopped transmitting traffic containing
4 real-time, interactive data on a first channel portion;

5 multiplexing traffic from a second mobile station on the first channel portion
6 during a period in which the first mobile station is not transmitting traffic;

7 receiving a request from the first mobile station for the channel portion, the
8 request indicating that the first mobile station is about to start transmitting traffic; and

9 sending an assignment message to the first mobile station,

10 wherein sending the assignment message comprises sending a plural-burst
11 assignment message.

1 18. (Original) The method of claim 1, wherein detecting that the first mobile station
2 has stopped transmitting traffic comprises receiving a General Packet Radio Service SID_FIRST
3 indication.

1 19. (Previously Presented) The method of claim 18, wherein receiving the request
2 comprises receiving a Real-Time Fast Associated Control Channel resource request message
3 from the first mobile station for re-assignment of the first channel portion.

1 20. (Previously Presented) The method of claim 19, further comprising sending a
2 Real-Time Fast Associated Control Channel assignment message to the first mobile station to
3 assign the first channel portion back to the first mobile station.

1 21. (Currently Amended) A system for use in a mobile communications system,
2 comprising:
3 a wireless interface adapted to communicate over a wireless channel portion with
4 a first mobile station; and
5 a controller adapted to detect if the first mobile station has entered into a
6 discontinuous transmission mode and to allocate the wireless channel portion to another mobile
7 station when the first mobile station is in the discontinuous transmission mode,
8 wherein the controller is adapted to further detect a request from the first mobile
9 station for re-allocation of the channel portion back to the first mobile station, the request
10 containing a coded version of an identifier associated with the first mobile station, the coded
11 version of the identifier being based on application of coding to the identifier according to a
12 coding scheme.

1 22. (Original) The system of claim 21, wherein the wireless channel portion includes
2 a time slot of a frame having plural time slots.

1 23. (Currently Amended) The system of claim ~~[[32]]~~ 31, further comprising a
2 multiplexer to receive traffic from the first mobile station when the first mobile station is in an
3 active mode and to receive traffic from the other mobile station when the first mobile station is in
4 the discontinuous transmission mode.

1 24. (Cancelled)

1 25. (Currently Amended) The system of claim ~~[[32]]~~ 31, wherein the request
2 comprises a request carried in a General Packet Radio Service Real-Time Fast Associated
3 Control Channel.

1 26. (Original) The system of claim 25, wherein the request comprises a Real-Time
2 Fast Associated Control Channel resource request message.

1 27. (Currently Amended) The system of claim [[32]] 31, wherein the controller is
2 adapted to further send an assignment message to the first mobile station in response to the
3 request.

1 28. (Previously Presented) The system of claim 21, wherein the request has a length
2 of one time slot of a frame.

1 29. (Currently Amended) The system of claim [[32]] 31, wherein the request is based
2 on an identifier associated with the first mobile station.

1 30. (Previously Presented) The system of claim 29, wherein the request contains a
2 coded version of the identifier associated with the first mobile station.

1 31. (Currently Amended) ~~The system of claim 32,~~ A system for use in a mobile
2 communications system, comprising:
3 a wireless interface adapted to communicate over a wireless channel portion with
4 a first mobile station; and
5 a controller adapted to detect if the first mobile station has entered into a
6 discontinuous transmission mode and to allocate the wireless channel portion to another mobile
7 station when the first mobile station is in the discontinuous transmission mode,
8 wherein the controller is adapted to detect a request from the first mobile station
9 for re-allocation of the channel portion back to the first mobile station,
10 wherein the controller is adapted to receive the request during at the same time the
11 controller is receiving traffic from the other mobile station,
12 wherein the controller comprises a joint detector to extract the request from a
13 combined message including the request and the traffic from the other mobile station.

1 32. (Cancelled)

1 33. (Currently Amended) A mobile station comprising:
2 a detector to detect when the mobile station is entering discontinuous transmission
3 mode;
4 a controller adapted to send an indication to a base station of the discontinuous
5 transmission mode to indicate that a channel portion assigned to the mobile station is idle,
6 the controller adapted to further send a request for re-assignment of the channel
7 portion when the mobile station exits discontinuous mode, wherein the request for re-assignment
8 contains a coded version of an identifier associated with the mobile station, the coded version of
9 the identifier being based on application of coding to the identifier according to a coding scheme.

1 34. (Original) The mobile station of claim 33, wherein the controller is adapted to
2 send the indication according to a General Packet Radio Service protocol.

1 35. (Previously Presented) The mobile station of claim 34, wherein the identifier
2 comprises a temporary flow identifier, the coded version of the temporary flow identifier being
3 longer in length than the temporary flow identifier.

1 36. (Original) The mobile station of claim 35, further comprising a storage unit to
2 store the temporary flow identifier, the mobile station keeping the temporary flow identifier
3 during discontinuous transmission mode.

1 37. (Original) The mobile station of claim 33, wherein the controller is adapted to
2 further receive an assignment message responsive to the request and to transmit traffic on the
3 channel portion after receiving the assignment message.

1 38. (Original) The mobile station of claim 33, wherein the channel portion comprises
2 a time slot of a frame.

1 39. (Cancelled)

1 40. (Currently Amended) The system of claim [[39]] 52, wherein the channel portion
2 comprises a time slot of a frame having plural time slots.

1 41. (Currently Amended) The system of claim [[39]] 52, wherein the request
2 comprises a General Packet Radio Service Real-Time Fast Associated Control Channel message.

1 42. – 43. (Cancelled)

1 44. (Previously Presented) The article of claim 45, wherein the channel portion
2 comprises a time slot of a frame having plural time slots.

1 45. (Currently Amended) An article comprising at least one storage medium
2 containing instructions for communicating in a mobile communications network, the instructions
3 when executed causing a system to:

4 detect a first mobile station entering discontinuous transmission mode, the first
5 mobile station assigned a channel portion to communicate traffic;

6 multiplex traffic from a second mobile station onto the channel portion during a
7 time period in which the first mobile station is in discontinuous transmission mode;

8 receive a request from the first mobile station for a re-allocation of the channel
9 portion; [[and]]

10 receive the request from the first mobile station that overlaps traffic from the
11 second mobile station; and

12 extract the request from a combined signal including the request and the traffic
13 from the second mobile station.

1 46. (Currently Amended) A data signal embodied in a carrier wave and comprising
2 instructions for communicating in a mobile communications network, the instructions when
3 executed causing a system to:

4 receive an indication that a first mobile station is entering discontinuous
5 transmission mode;

6 allocate a channel portion assigned to the first mobile station to a second mobile
7 station;

8 receive traffic from the second mobile station during a time period in which the
9 first mobile station is in discontinuous transmission mode;

10 receive a request from the first mobile station for re-allocation of the channel
11 portion, wherein the request contains a coded version of an identifier associated with the first
12 mobile station, the coded version of the identifier being based on application of coding to the
13 identifier according to a coding scheme.

1 47. (Previously Presented) The method of claim 1, wherein the coded version of the
2 identifier is longer in length than the identifier.

1 48. (Previously Presented) The method of claim 47, wherein the identifier comprises
2 a temporary flow identifier, and wherein the coded version of the temporary flow identifier is
3 longer in length than the temporary flow identifier.

1 49. (Previously Presented) The system of claim 21, wherein the coded version of the
2 identifier is longer in length than the identifier.

1 50. (Previously Presented) The data signal of claim 46, wherein the coded version of
2 the identifier is longer in length than the identifier.

1 51. (Previously Presented) The mobile station of claim 33, wherein the coded version
2 of the identifier is longer in length than the identifier.

1 52. (Currently Amended) ~~The system of claim 39,~~ A system for use in a mobile
2 communications system, comprising:
3 a wireless interface adapted to communicate over a wireless channel portion with
4 one of a first mobile station and a second mobile station; and
5 a controller adapted to allocate the channel portion to the second mobile station
6 when the first mobile station is silent and to receive a request from the first mobile station for
7 allocation of the channel portion while concurrently receiving traffic from the second mobile
8 station, wherein the received request overlaps the traffic from the second mobile station,
9 wherein the controller comprises a detector to extract the request from a combined
10 signal including the request and the traffic from the second mobile station.